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10/568,803	02/21/2006	Christian Laurent-Lund	P69083US1	7243

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EXAMINER	
PETKOVSEK, DANIEL J	
ART UNIT	**PAPER NUMBER**
2874	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,803	LAURENT-LUND ET AL.	
	Examiner Daniel J. Petkovsek DJP 1/29/07	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *pre-amd to claims filed Feb 21, 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/15/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the pre-amendment to the claims filed February 21, 2006. In accordance with the pre-amendment, claims 4, 5, 8-10, 12, 15, 16, 18, 20, 22, 25, 26, 29, and 30 have been amended.

Claims 1-30 are pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The prior art documents submitted by Applicant in the Information Disclosure Statements filed on August 15, 2006, have been considered and made of record (note attached copy of forms PTO-1449). It is noted that references AS and AT have no been considered, and have been lined through. See the following paragraphs.

3. The information disclosure statement references AS and AT filed August 15, 2006 fail to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each ***non-patent literature publication*** or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper."

Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

5. The abstract of the disclosure is objected to because of the length in words, which is over 150. Correction is required. See MPEP § 608.01(b).

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-8, 10, 18, 22, and 25-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Granestrand et al. U.S.P. No. 6,181,860 B1.

Granestrand et al. U.S.P. No. 6,181,860 B1 teaches (ABS, Fig. 1, column 2, line 55 through column 3, line 25) an optical component comprising a combination of optical waveguide elements for modifying the spot size or a mode of an electromagnetic field propagated by an optical waveguide element, the optical waveguide element being formed on a substrate 30, the optical component comprising a) a first section comprising a first optical waveguide element 1, and b) a second section comprising at least two cooperating optical waveguide elements 10, each of said at least two cooperating waveguide elements comprising at least one waveguide segment, the two cooperating waveguide elements being optically connected (at least through portion 15) to the first optical waveguide section, which clearly, fully meets Applicant's *claimed* structural limitations.

Regarding any "adapted to" limitations, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense, and no patentable weight has been given to these limitations. *In re Hutchinson*, 69 USPQ 138. It is noted that a number of claims contain "adapted to" language, such as independent claim 1, and further dependent claims 10, 16, and 18.

Regarding claim 2, the width tapers and increases in region 15 (Fig. 1).

Regarding claims 3 and 4, at least a "linear path" for curvature is disclosed (column 2, lines 66-67), as section 15 can be a portion of either the first or second section, based on frame of reference.

Regarding claim 5, the edge to core distances between adjacent cooperating waveguide elements 10 decrease as the distance to the first waveguide element decreases.

Regarding claim 6, the tapering widths increase toward the connection (see Fig. 1). Regarding claims 7 and 8, at least a "linear path" for curvature is disclosed (column 2, lines 66-67), as section 15 comprising the taper, of either the first or second section, based on frame of reference.

Regarding claim 10, the two cooperating waveguide elements 10 can be coupled to an output waveguide 20.

Regarding claim 18, it is inherent that the waveguide 1 is optically coupled to an input, in which widths are essentially equals.

Regarding claim 22, area 15 can be described as transverse to the two distinct sections.

Regarding claim 25, at lest polymers and semiconductor materials are used (column 3, lines 23-25).

Regarding claims 26-30, the claimed method of forming the device is not germane to the issue of patentability of the device itself. Therefore this limitation has not given any patentable weight.

The method of manufacturing defined by claims 26-30 is given no patenable weight in device claim (independent claim 1). The final structure of claimed invention is identical to the Granestrand et al. '860 device.

This is a product-by-process limitation. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production.

If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". In re Thorpe, 777F. 2d 695,698 USPQ 964, 966 (Fed. Cir.1985). See also MPEP 2113. Moreover, an old or obvious product produced by a new method is not a patentable product, whether claim in "product by process" claim or not.

9. Claims 1, 9, 10, and 25-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Hatayama et al. U.S.P. No. 6,269,211 B1.

Hatayama et al. U.S.P. No. 6,269,211 B1 teaches (ABS, Figs. 2A, 2B, 3, 7A, 7B, column 4, line 16 through column 5, line 15) an optical component comprising a combination of optical waveguide elements for modifying the spot size or a mode of an electromagnetic field propagated by an optical waveguide element, the optical waveguide element being formed on a substrate 11, the optical component comprising a) a first section comprising a first optical waveguide element 12, and b) a second section comprising at least two cooperating optical waveguide elements 13,14, each of said at least two cooperating waveguide elements comprising at least one waveguide segment, the two cooperating waveguide elements being optically connected and coupled to the first optical waveguide section, which clearly, fully meets Applicant's *claimed* structural limitations. Regarding any "adapted to" limitations, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense, and no patentable weight has been given to these limitations. *In re Hutchinson*, 69

USPQ 138. It is noted that a number of claims contain "adapted to" language, such as independent claim 1, and further dependent claims 10, 16, and 18.

Regarding claim 9, the width W1 of waveguide 12 is larger than or equal to the sum of waveguides 13 and 14 (W3 + W3) (see Fig. 3).

Regarding claim 10, the two cooperating waveguides can be connected to an output.

Regarding claim 25, Si substrate is used.

Regarding claims 26-30, the claimed method of forming the device is not germane to the issue of patentability of the device itself. Therefore this limitation has not given any patentable weight.

The method of manufacturing defined by claims 26-30 is given no patenable weight in device claim (independent claim 1). The final structure of claimed invention is identical to the Hatayama et al. U.S.P. No. 6,269,211 B1 device.

This is a product-by-process limitation. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production.

If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". In re Thorpe, 777F. 2d 695,698 USPQ 964, 966 (Fed. Cir.1985). See also MPEP 2113. Moreover, an old or obvious product produced by a new method is not a patentable product, whether claim in "product by process" claim or not.

10. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Lam et al. US 2003/0053756 A1.

Lam et al. US 2003/0053756 A1 teaches (ABS, Figs. 1 and 2, [0023]-[0026]) an optical component 20 comprising a combination of optical waveguide elements for modifying the spot size or a mode of an electromagnetic field propagated by an optical waveguide element, the optical waveguide element being formed on a substrate, the optical component comprising a) a first section comprising a first optical waveguide element 4, and b) a second section comprising at least two cooperating optical waveguide elements 5, lower 6 each of said at least two cooperating waveguide elements comprising at least one waveguide segment, the two cooperating waveguide elements being optically connected to the first optical waveguide section (distinction is between areas labeled as 4 and 5), which clearly, fully meets Applicant's *claimed* structural limitations. Regarding any "adapted to" limitations, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense, and no patentable weight has been given to these limitations. *In re Hutchinson*, 69 USPQ 138.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 9, 11-17, 19-21, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Granestrand et al. U.S.P. No. 6,181,860 B1.

Granestrand et al. U.S.P. No. 6,181,860 B1 teaches (ABS, Fig. 1, column 2, line 55 through column 3, line 25) an optical component comprising a combination of optical waveguide elements for modifying the spot size or a mode of an electromagnetic field propagated by an optical waveguide element, the optical waveguide element being formed on a substrate 30, the optical component comprising a) a first section comprising a first optical waveguide element 1, and b) a second section comprising at least two cooperating optical waveguide elements 10, each of said at least two cooperating waveguide elements comprising at least one waveguide segment, the two cooperating waveguide elements being optically connected (at least through portion 15) to the first optical waveguide section, which clearly, fully meets Applicant's *claimed* structural limitations.

Granestrand et al. U.S.P. No. 6,181,860 B1 does not disclose expressly the dependent claim limitations of claims 9, 11-17, 19-21, 23, and 24. At the time the invention was made, and in view of the Granestrand et al. '860 reference, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify Granestrand et al. '860 with the dependent claim limitations because Applicant has not disclosed that the dependent claim limitations provide an advantage, are used for a particular purpose, or solve a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's device to perform equally well with the each dependent limitation because the claim limitations were obvious modifications in the art at the time the invention was made. Therefore, it would have been an obvious

matter of design choice to modify Granestrand to include dependent limitations and obtain the invention as specified in claims 9, 11-17, 19-21, 23, and 24.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: PTO-892 form references A-G.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel Petkovsek
January 29, 2007

SUNG PAK
PRIMARY EXAMINER